

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/US2006/014055

International filing date (day/month/year)
13.04.2006

Priority date (day/month/year)
27.02.2006

International Patent Classification (IPC) or both national classification and IPC
INV. B29C49/54 B29C49/48
ADD. B29C49/06

Applicant
GRAHAM PACKAGING COMPANY, L.P.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1b(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office
D-80296 Munich
Tel.: +49 89 2399-0 Tx: 523856 epmu d
Fax: +49 89 2399-4465

Date of completion of
this opinion

see form
PCT/ISA/210

Authorized Officer

LORENTE MUNOZ, N

Telephone No. +49 89 2399-2999



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2006/014055

Box No. 1 Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed
 - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the International application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ on paper
 - ☐ In electronic form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in electronic form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of

- ☐ the entire international application
- ☒ claims Nos. 4, 9, 15, 26, 31-40

because:

- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international search (*specify*):
- ☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):
- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed (*specify*):
- ☒ no international search report has been established for the whole application or for said claims Nos. 4, 9, 15, 26, 31-40
- ☐ a meaningful opinion could not be formed without the sequence listing; the applicant did not, within the prescribed time limit:
- ☐ furnish a sequence listing on paper complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.
- ☐ furnish a sequence listing in electronic form complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.
- ☐ pay the required late furnishing fee for the furnishing of a sequence listing in response to an invitation under Rules 13ter.1(a) or (b).
- ☐ a meaningful opinion could not be formed without the tables related to the sequence listings; the applicant did not, within the prescribed time limit, furnish such tables in electronic form complying with the technical requirements provided for in Annex C-bis of the Administrative Instructions, and such tables were not available to the International Searching Authority in a form and manner acceptable to it.
- ☐ the tables related to the nucleotide and/or amino acid sequence listing, if in electronic form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions.
- ☐ See Supplemental Box for further details

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
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Box No. IV Lack of unity of invention

1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees, the applicant has, within the applicable time limit:
- ☐ paid additional fees
 - ☐ paid additional fees under protest and, where applicable, the protest fee
 - ☐ paid additional fees under protest but the applicable protest fee was not paid
 - ☒ not paid additional fees
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- ☐ complied with
 - ☒ not complied with for the following reasons:
see separate sheet
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☐ all parts.
 - ☒ the parts relating to claims Nos. 1-3,5-8,10-14,16-25,27-30

Box No. V Reasoned statement under Rule 43b/s.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	28-30
	No: Claims	1-3,5-8,10-14,16-25,27
Inventive step (IS)	Yes: Claims	
	No: Claims	1-3,5-8,10-14,16-25,27-30
Industrial applicability (IA)	Yes: Claims	1-3,5-8,10-14,16-25,27-30
	No: Claims	

2. Citations and explanations

see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item IV.

The separate inventions/groups of inventions are:

Claims 1-3,5-8,10-14,16-25,27-30: A method and a base assembly for forming a container from a parison within a mold by blow molding, wherein the container has a moveable region which is repositioned before filling characterized in that the container is released after the repositioning step.

Claims 1,3,4,9,12,13,15,16,20,24-26,30: A method and a base assembly for forming a container from a parison within a mold by blow molding, wherein the container has a moveable region which is repositioned before filling characterized in that the container is released before the repositioning step.

Claims 31-40: A method and an assembly for forming a container from a parison within a mold by blow molding, wherein the container has a moveable region which is repositioned before filling characterized in that the mold has a wall with a recess, the moveable region being a moveable gripping region and being formed at said recess.

They are not so linked as to form a single general inventive concept (Rule 13.1 PCT) for the following reasons:

- 1 The present application relates to several inventions or groups of inventions which are not so linked as to form a single general inventive concept and therefore do not comply with the requirements of PCT Rule 13.1, the different inventions being the following:

Invention 1 - Claims 1-3,5-8,10-14,16-25,27-30: A method and a base assembly for forming a container from a parison within a mold by blow molding, wherein the container has a moveable region which is repositioned before filling characterized in that the container is released after the repositioning step.

Invention 2 - Claims 1,3,4,9,12,13,15,16,20,24-26,30: A method and a base assembly for forming a container from a parison within a mold by blow molding, wherein the container has a moveable region which is repositioned before filling characterized in that the container is released before the repositioning step.

Invention 3 - Claims 31-40: A method and an assembly for forming a container from a parison within a mold by blow molding, wherein the container has a moveable region which is repositioned before filling characterized in that the mold has a wall with a recess, the moveable region being a moveable gripping region and being formed at said recess.

- 2 The only features common to the inventions 1 and 2 are the features of independent claims 1, 12, 16, 20 and 24. These features are well known from the prior art, as disclosed by documents D1 (see figures 8 and 9; figures 12 and 13; paragraphs [0038]-[0040] and [0047]-[0050]); the method disclosed is also suitable for increasing crystallinity since it comprises the same steps as claim 12) and D2 (see figures 4, 5 and 7 to 10; column 4, line 55 - column 6, line 68; the method disclosed is also suitable for increasing crystallinity since it comprises the same steps as claim 12). Thus, these features cannot be considered to be special technical features.
- 2.1 The remaining features of the inventions 1 and 2 solve two different problems by means of different potentially special technical features.

The problem to be solved by the first invention is to increase the orientation of the material in the container base. The feature which solves this problem is that the container is released after the repositioning step.

The problem to be solved by the second invention is to provide a container capable of being free standing on its base. The feature which solves this problem is that the

container is released before the repositioning step.

- 2.2 Since the problems to be solved by the inventions 1 and 2 and the features which solve these problems are different, the different technical features cannot be considered to be corresponding special technical features as required by PCT Rule 13.2.
- 3 The only features common to the group of inventions 1 and 2 and to the invention 3 are *"a method and an assembly for forming a container from a parison within a mold by blow molding, wherein the container has a moveable region which is repositioned before filling"*. These features are well known from the prior art, as disclosed by documents D1 (see figures 8 and 9; figures 12 and 13; paragraphs [0038]-[0040] and [0047]-[0050]) and D2 (see figures 4, 5 and 7 to 10; column 4, line 55 - column 6, line 68), and are also provided to solve the problem of container stability, as indicated in paragraphs [0005]-[0007] of the application. Thus, these features cannot be considered to be special technical features.
- 3.1 The remaining features of the group of inventions 1 and 2 and of invention 3 solve two different problems by means of different potentially special technical features and the general problem cannot be considered as constituting a single general inventive concept between the group of inventions 1 and 2 and invention 3.

The problem to be solved by the inventions 1 and 2 is to improve container base properties. The feature which solves this problem is the reposition of a moveable region by using a base assembly.

The problem to be solved by the invention 3 is to improve gripping properties of the container. The feature which solves this problem is a mold adapted to form gripping portions.

- 3.2 Since the problems to be solved by these inventions and the features which solve these problems are different, the different technical features cannot be considered to be corresponding special technical features as required by PCT Rule 13.2.

Re Item V.

- 1 Reference is made to the following documents:

D1: EP 1 063 076 A

D2: US-A-4 036 926

- 2 Document D1 discloses (the references in parentheses applying to this document):

- A method for forming a container 4, comprising receiving a parison 1; enclosing said parison with a mold that includes a cavity; inflating said parison in said mold to form a blow molded container with a moveable region at said cavity; and repositioning said moveable region before filling said blow molded container (see figures 1, 6 to 9 and 3, in this order).
- A method suitable for increasing crystallinity of a container, comprising inflating a parison to form a blow molded container having a moveable region, at least a portion of said moveable region protruding outward from said blow molded container; and repositioning said moveable region before filling said blow molded container (see figures 1, 6 to 9 and 3, in this order; the method disclosed is also suitable for increasing crystallinity since it comprises the same steps as claim 12).
- A base assembly for forming a container with a base having a moveable region and having a bearing surface, comprising a base pedestal; a base plug coupled to said base pedestal, said base plug having a base mold adapted to form the moveable region and to form the bearing surface of the base so that at least a portion of the moveable region protrudes outward from the base beyond the bearing surface (see figures 6, 8 and 9).
- A container comprising a base including a moveable region having a dimple; and a bearing surface that is offset from said moveable region, wherein after blow molding and before filling, at least a portion of said moveable region

protrudes outward beyond said bearing surface (see container of figure 8).

- A method comprising receiving a parison 1; enclosing the parison within a mold (see figure 6), said mold including a wall with a recess (see mold bottom in figure 6); inflating the parison into said mold to form a blow molded container (see figure 8), said blow molded container having a sidewall (see figure 3), a movable region formed at said recess (see figures 8, 9), and a hinge 43 circumscribing an interface between said sidewall and said movable region (see figure 9); and moving said movable region toward an interior of the blow molded container about said hinge before filling said blow molded container with a consumable product (see figures 8, 9).

Document D2 also discloses the features cited above (see figures 4, 5, 7 to 10; column 4, line 55 - column 6, line 68).

2.1 INDEPENDENT CLAIM 1

As can be seen from the above, document D1 discloses in combination all the features defined in independent claim 1. Hence the subject-matter of this claim is not new (Article 33(2) PCT).

2.2 DEPENDENT CLAIMS 2, 3, 5-8, 10, 11

Dependent claims 2, 3, 5-8, 10, 11 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty (Article 33(2) PCT).

2.3 INDEPENDENT CLAIM 12

As can be seen from the above, document D1 discloses in combination all the features defined in independent claim 12. Hence the subject-matter of this claim is not new (Article 33(2) PCT).

2.4 DEPENDENT CLAIMS 13, 14

Dependent claims 13, 14 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty (Article 33(2) PCT).

2.5 INDEPENDENT CLAIM 16

As can be seen from the above, document D1 discloses in combination all the features defined in independent claim 16. Hence the subject-matter of this claim is not new (Article 33(2) PCT).

2.6 DEPENDENT CLAIMS 17-19

Dependent claims 17-19 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty (Article 33(2) PCT).

2.7 INDEPENDENT CLAIM 20

As can be seen from the above, document D1 discloses in combination all the features defined in independent claim 20. Hence the subject-matter of this claim is not new (Article 33(2) PCT).

2.8 DEPENDENT CLAIMS 21-23

Dependent claims 21-23 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty (Article 33(2) PCT).

2.9 INDEPENDENT CLAIM 24

As can be seen from the above, document D1 discloses in combination all the features defined in independent claim 24. Hence the subject-matter of this claim is

not new (Article 33(2) PCT).

2.10 DEPENDENT CLAIMS 25, 27-30

Dependent claims 25, 27-30 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty (claims 25, 27; Article 33(2) PCT) and/or inventive step (claims 28 to 30; Article 33(3) PCT).

- 3 Claims 1-3, 5-8, 10-14, 16-25 and 27-30 meet the requirements of the PCT with respect to the industrial applicability (Article 33(4) PCT).

Re Item VII

- 1 Independent claims are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document D1) being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
- 2 The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).
- 3 Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1 and D2 is not mentioned in the description, nor are these documents identified therein.

Re Item VIII

- 1 The application does not meet the requirements of Article 6 PCT, because claims are not concise.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/US2006/014055

Although claims 1, 12 and 24 have been drafted as separate independent method claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought and/or in respect of the terminology used for the features of that subject-matter. The aforementioned claims therefore lack conciseness. Moreover, lack of clarity of the claims as a whole arises, since the plurality of independent claims makes it difficult, if not impossible, to determine the matter for which protection is sought, and places an undue burden on others seeking to establish the extent of the protection.